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Financial Literacy Perception Scale for the Portuguese Population

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Abstract

This study aims to propose and validate a financial literacy perception scale for the Portuguese population. The utilized methodology was quantitative, based on a two-part questionnaire survey. The first part studies the sociodemographic profile and the second part evaluates the respondent's perception of financial literacy. The sample consisted of 830 Portuguese individuals, over 18 years old. The main results of this study demonstrate that the financial literacy perception scale presents a tri-factorial structure with satisfactory validity and reliability levels. The three obtained factors are 1-2 years financial planning and goals, long term savings and an affinity for numerical calculation. This study contributes to the increase of scientific knowledge in the field of financial literacy, to the assistance of financial education policymakers in the reformulation of their policies and to the creation of tools to help consumer financial behavior.

Keywords: financial literacy; financial education; financial learning; financial decisions; financial welfare.

JEL classification: G02; G11; G20.

1. INTRODUCTION

Financial literacy has been gaining importance in people's daily lives and has entered the debate of today's society.

There is no single and universal definition for financial literacy, but it can be explained as a way that allows key financial concepts to be understood and that provides the ability and confidence to individuals to manage their personal finances in a convenient manner. Financial literacy allows individuals to make short-term solid decisions, long-term financial planning and to be aware of the daily events and changes in the economic conditions. The financial crisis brought attention and concerns on topics such as financial literacy and financial innovation, referring to them as relevant factors in the outbreak of the US *subprime* crisis.

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Following the economic and financial crisis, a new phase in financial literacy began as global concerns increased and more attention was being paid by the nations to the levels of financial education and to the training of its people. Financial literacy is now a daily subject in most countries. The recent economic and financial crisis, the growth of banking and insurance activity and the pressure of the consumer marketing have led the governments of different countries to place financial education and literacy as a priority for their programs.

Financial literacy is characterized as the ability to read, analyze, manage and communicate the numerous financial problems that arise daily in people's material well-being. It is also considered as the understanding about the market principles, instruments, organizations and its regulations and the competence and aptitude to use the acquired knowledge in the financial area.

Huston (2010) understands that financial literacy has two dimensions: its comprehension and its use. Comprehension refers to the knowledge of personal finance, and the use refers to the application of personal finance. For the author, literacy is not the same as financial knowledge. Financial literacy implies the ability to make financial decisions with the knowledge you have.

Huston (2010) also states that financial education can be understood as the ability of an individual to understand the financial information related to operational transactions. Abreu and Mendes (2010) understand that financial literacy is transversal to the various types of information to which the individual has access. Abreu and Mendes (2010) refer to three information dimensions which are predominant in the financial literacy: (i) the financial knowledge revealed in the answers to specific questions about the financial market; (ii) school education, due to its positive influence on the development of the ability to manage multiple sources of information; (iii) the access to and the selection of information sources used for decision making.

Given the absence and subsequent ignorance of a framework for assessing the perception of financial literacy, this study aims to propose and validate a financial literacy scale for the Portuguese population. To achieve this goal, in addition to its introduction, the article presents a review of the literature on the theme. Subsequently, the used methodology in the study is presented, followed by the demonstration and analysis of the study results. Finally, the conclusions will be presented.

2. LITERATURE REVIEW

Individuals with greater literacy and financial education make better financial decisions for their families, thus experience greater economic stability and security, and financial well-being. The literature demonstrates that financial literacy has a direct impact on the level of indebtedness and financial default rate of households, being a variable that contributes to the psychological, social and health effects of societies. Financial literacy has gained importance through scientific studies that have shown that individuals with better literacy and financial education make more reasonable decisions, plan their consumption and savings better, and also do better financial planning throughout their lives. Table 1 presents the most important conclusions of some scientific studies of financial literacy.

Table no. 1 – Studies about the importance of financial literacy

Items Description	Authors
Financial literacy is particularly important when financial products are complex. Financial ignorance carries significant costs.	Lusardi and Tufano (2015); Calcagno and Monticone (2010)
Financial literacy avoids over-indebtedness of populations, allows for financial security and contributes to the economic development of societies. Individuals with financial literacy can more easily withstand economic impacts without having to rely on credit.	Lewis and Messy (2012)
The ubiquity of the banking system and the increasing complexity of financial instruments are the basis of the growing focus on financial education.	Lusardi and Mitchell (2011); Atkinson and Messy (2012); Messy and Monticone (2016)
The business world is constantly changing and has an overabundance of information, only financial literacy can be the balance between the relevance of information and the ability to perceive and interpret it.	Gouws and Shuttleworth (2009)
Consumers with financial literacy make better decisions for their families and increase their economic security and well-being.	Rahmandoust, Shah, Norouzi, Hakimpoor e Khani (2011)
Individuals with strong financial skills can make better decisions.	Mandell and Klein (2009); Grifoni and Messy (2012)
Individuals with strong financial skills do a better job planning and plan better for their retirement, have higher debt levels and save less. Households generally raise their savings levels in times of economic recession.	Klapper, Lusardi and Panos (2012); Lusardi (2015)

Source: self-content

In financial literacy the most studied items are: gender, age, educational level, region of study, marital status, employment status, level of indebtedness, economic and financial education, experience and knowledge of financial products, employment and job title. Other studies relate the level of financial literacy to financial education obtained throughout family and school life, and individual perceptions of savings and the value of money. In the first two decades of the 21st century, we have observed that studies have grown to other areas such as: knowledge of short and long term interest rates, inflation rates, profitability and risk analysis, the value of money over time, diversification, the stock market, the government public bonds market and financial learning. Table 2 presents the most studied items/aspects in financial literacy.

Table no. 2 – Items/aspects studied in financial literacy

Items Description	Authors
Financial literacy studies are associated with various factors: gender, age, educational level, region, marital status, employment status, income level, economic/financial education, financial experience and knowledge, employment and job title.	Robb, Babiarz, and Woodyard (2012); Fonseca, Mullen, Zamarro and Zissimopoulos (2012); Monticone (2010)
Arguments responsible for low rates of financial literacy: banking deregulation and increasing global complexity of the economy, lack of approach to financial education in schools,	Anthes (2004); Edwards, Allen, and Hayhoe (2007); Fox, Bartholomae and Lee (2005).

Items Description	Authors
persuasive culture brought by the consumer marketing.	
Knowledge of the financial investors. Educational standard of the country. Basic notion of stocks and risk diversification.	Abreu and Mendes (2010) Lusardi and Mitchell (2014) Finke, Howe, and Huston (2016).
Factors that impact financial literacy are: (i) financial education taught by family during childhood and adolescence, (2) financial education taught at school during childhood and adolescence, (iii) perceptions of savings, and (iv) the comprehension of the value of money.	Pacheco, Ribeiro, and Tavares (2016).
The levels of financial literacy impact the prospects of wealth accumulation and retirement planning. Capability to analyze interest rates, inflation, risk diversification and sales discount.	Bernheim and Garrett (2003); Cutler and Delvin (2000). Knoll and Houts (2012); Lusardi e Mitchell (2014)
Inflation rate, interest rate, value of money in time, risk, diversification, stock market, credit and government public bonds and financial literacy.	Potrich, Vieira and Kirch (2018)
The level of financial literacy and financial education in a sample of college students.	Tavares, Almeida, and Cunha (2019)
Youth financial literacy, socioeconomic and demographic factors.	Garg and Singh (2018).

Source: self-content

3. METHODOLOGY

3.1. Sample and data gathering

The target population of this study is Portuguese citizens over 18 years. To obtain the sample elements, the non-probabilistic convenience sampling method was used due to the ease of access to the sample and the low associated cost.

The questionnaires surveys were distributed on a previously designated site for self-completion from March to April 2019. These questionnaires were presented to participants with a short introductory summary that outlines the study's objectives and ensures that the provided information is anonymous and confidential.

After the data gathering, a sample of 854 individuals was obtained, where a sample of 843 were validated, with respondents between 18 and 71 years old (11 presented irregularities in the completing of the questionnaire). To validate this model, 13 respondents were eliminated because they were considered outliers, and so the final sample consisted of 830 Portuguese individuals over 18 years old.

3.2. Instruments and measures

In order to know the different characteristics of the phenomenon under this study, a quantitative methodological approach is used (Günther, 2006). This approach was based on the application of a two-part self-administered questionnaire survey. The first part studies the sociodemographic profile of respondents (gender, age, marital status, educational level, area of education, employment status, gross annual income and if the respondent has a household budget or not) and the second part comprehends an adaptation of the

questionnaire presented in the study made by Fernandes, Lynch and Netemeyer (2014) and Ramalho (2017) which measures the respondent's perception of financial literacy.

Table no. 3 - Items that evaluate the perception of financial literacy

Items
I keep track of my money
I make a financial planning for the future.
I regularly save money for the future.
I am very cautious about money.
I save now to prepare myself for my old age
I follow a careful financial budget
I like to do calculations using numeric information
I like working with the use of numbers
It gives me satisfaction to solve daily problems involving numbers
Numerical information is very useful in my daily life
(**) I prefer not to pay attention to information involving numbers
(**) I don't like to think about issues involving numbers
(**) I don't think that numerical information is relevant
I think it is important to learn how to use numerical information
I like to consult my budget to check how much money I have for the next 1-2
I feel better having planned my finances over the next 1-2 years
I like to have a budget for the next 1-2 years and check to see if I'm fulfilling it
I establish financial goals for the next 1-2 years
I consider the steps I need to take to maintain my budget for the next 1-2 year
I decide beforehand how my money will be spent in the next 1-2 years

The items marked with (**) are stated in the negative - Source: self-content

Some items were translated and adapted from English to Portuguese by a translator and revised by a Portuguese language expert who assessed the clarity of the issues, and then made minor semantic adjustments.

To measure the 20 items that evaluate the perception of financial literacy (Table 3), a 5-point Likert concordance scale was used (1 - *Strongly Disagree* to 5 - *Strongly Agree*). There are three items formulated in the negative, which are indicated in Table 3.

For the reference, before the questionnaire was applied to the individuals in the sample under study, it was submitted to a pre-test conducted on 50 individuals with the characteristics of the target population. After this pre-test, minor semantic adjustments were made to improve the comprehension of the different items that evaluate the perception of financial literacy.

3.3. Data Analysis

To characterize the profile of the individuals and to perform the descriptive analysis, which is presented, the descriptive statistics technique was used with the assist of the IBM SPSS Statistics 25 software.

According to the indications of Kline (2015) and Maroco (2014), before performing the factorial validation of the model, the verification of the distribution of items, omitted cases and outliers identification must be done. The sensitivity of the items was evaluated using the asymmetry coefficients ($|Sk| \leq 3$) and flatness ($|Ku| \leq 7$) coefficients. The factor

validity of the model was evaluated using the exploratory and confirmatory factor analysis techniques. To verify the suitability of the application of exploratory factor analysis (EFA) to the study sample, the KMO (Kaiser-Meyer-Olkin) sample adequacy index and the Bartlett sphericity test (p <0.05) were used (Pestana and Gageiro, 2014). KMO values higher than 0.9 reveal a very good suitability of the sample. In EFA, for factor extraction, the principal components method was used (factor loadings with values above 0.50 are considered satisfactory), followed by a varimax rotation, and to ascertain the minimum number of factors to be retained, the Kaiser criterion was used (eigenvalues above 1) and to complement the Scree plot graphic. In the confirmatory factor analysis (CFA), the adequacy of the structure that emerged from the EFA was tested, and for this, the maximum of accuracy estimation method was used, and, in order to obtain a good adjustment of the model, the following index of quality of fit were used: Chi-square statistic ratio for degrees of freedom ($\chi 2$ / *df*) below 3, GFI (*Goodness of Fit Index*), CFI *(Comparative Fit Index)* above 0.9, RMSEA (*Root Mean Square Error of Approximation*) less than or equal to 0.05, PCLOSE (*comparative fit index)* greater than or equal to 0.05 (Kline, 2015; Maroco, 2014). To evaluate the parsimony of the models, the comparative fit index MECVI *(modified expected CROSS-validation index)* and the chi-square fit difference test were used (Maroco, 2014).

The reliability of the factors was assessed with Cronbach's alpha (Maroco and Garcia-Marques, 2006) and with the composite reliability (Fornell and Larcker, 1981). Both measures to be considered as acceptable must have values above than 0.7. The convergent validity was estimated by the value of AVE *(Average variance extracted)*, which according to Hair, Black, Babin and Anderson (2014) must have values greater than 0.5 to be an indicator of adequate convergent validity.

To analyze the discriminant validity, three parameters were used: AVE (*Average variance extracted*), MSV (*Maximum shared variance*) and ASV (*Average shared variance*), and the following criteria were considered: i) the value of the AVE parameter must be higher than the MSV parameter; ii) the value of parameter AVE must be higher than the value of the ASV parameter; iii) the square root of the value of the AVE parameter must be higher than the inter-factor correlations (Hair et al., 2014).

4. RESULTS

4.1 Sample Characterization

The study sample consisted of 830 individuals, most of them male (59.3%). The age of the respondents is between 18 and 71 years old, with an average of 37 years old (*SD* = 12.04). Regarding their marital status, 50.1% of the respondents are single or separated or divorced; 49.6% are married or living together, and 0.2% are widowers. Regarding the level of education, 1.9% have a level of education lower or equal to the 9th grade, 22.7% have studied until the 12th grade, 50.0% have a bachelor's degree and 25.4% have a master's or doctorate degree. Regarding to the area of the degree, 56.7% of the respondents have a degree in Economics, Management, Finance, Accounting or similar. Regarding to employment status, most of the respondents are employees, which means that they work for other people (62.3%). About the gross annual household income, 14.5% have an annual income of less than 10 000.00€; 29.9% have an income between 10 001.00€ and 20

000.00€; 20.8% between 20 001.00€ and 30 000.00€; 17.8% between 30 001.00 € and 45 000.00€; 9.0% between 45 001.00€ and 60 000.00€ and 8.0% have an annual gross income over 60 000.00€. Of the 830 individuals analyzed, the majority (61.1%) has a domestic household or a family household budget in their homes, with the purpose of deciding which part of the income will be spent and which will be used for savings.

4.2 Validation of the Financial Literacy Perception Scale

This section has the purpose of studying the reliability and theoretical validity of the Financial Literacy Perception scale. The content validity was performed through literature review. To study the theoretical validity of the scale, the analysis of the factorial validity, convergent validity and discriminant validity were used. According to Maroco (2014), the application of factor validity is intended to specify the factorial structure of the items, the convergent validity is intended to demonstrate that the items that constitute the factors have positive and high correlations with each other, and the discriminant validity evaluates whether the items corresponding to one factor are or are not correlated with other factors.

4.2.1 Exploratory Factor Analysis

The 20 items do not reveal severe violations of univariate and multivariate normality.

The authors proceeded to reverse the items formulated in the negative and, after applying the EFA technique to the 20 items related to the perception of financial literacy, 5 items were eliminated ("Numerical information is very useful in my daily life", "I think it is important to learn how to use numerical information", "I prefer not to pay attention to information involving numbers", "I don't like to think about issues involving numbers" and "I don't think numerical information is relevant") because they have commonality values lower than 0.5. Bartlett's sphericity test and KMO index for the 15 items ($\chi^2(105)$ = 8955,865, p <0.001, KMO = 0.903) presented a very good suitability of the sample for AFE application (Pestana and Gageiro, 2014).

Table 4 displays the matrix of factor loadings and commonalities of the Financial Literacy Perception scale. According to Kaiser's criterion, four factors were retained, which together explain 71.93% of the total variance.

The first factor is the 1-2 years financial planning and goals (items FP1, FP2, FP3, FP4, FP5 and FP6) and explains 30.64% of variance, the second factor is the long-term savings (items LS1, LS2, LS3, LS4, LS5 and LS6) and explain 24.52% of variance, and the third factor is the affinity for numerical calculation (items ANC1, ANC2 and ANC3) and explains 16.77% of variance.

Table no. 4 –Matrix of Factor Loadings and Commonalities of the Financial Literacy Perception scale

	Factor			h^2
	1	2	3	
FP1- I consider the steps I need to take to maintain my budget for the next 1-2 years	0.857			0.803
FP2- I like to have a budget for the next 1-2 years and check to see if I'm fulfilling it	0.860			0.823
FP3- I like to consult my budget to check how much	0.837			0.795

	Factor			h^2
	1	2	3	
money I have for the next 1-2 years				
FP4- I decide beforehand how my money will be spent in the next 1-2 years	0.817			0.740
FP5- I feel better having planned my finances over the next 1-2 years	0.828			0.770
FP6- I establish financial goals for the next 1-2 years	0.787			0.697
LS1- I regularly save money for the future		0.783		0.668
LS2- I am very cautious about the money		0.735		0.620
LS3- I follow a careful financial budget		0.713		0.638
LS4- I make a financial planning for the future		0.716		0.640
LS5- I save now to prepare myself for my old age.		0.718		0.564
LS6- I keep track of my money		0.724		0.575
ANC1- It gives me satisfaction to solve daily problems involving numbers			0.913	0.852
ANC2- I like working with the use of numbers			0.893	0.821
ANC3- I like to do calculations using numeric information			0.871	0.782
eigenvalues	4.596	3.678	2.515	
% Explained Variance (71.93%)	30.64%	24.52%	16.77%	

Source: self-content

4.2.2 Confirmatory Factor Analysis

Applying the confirmatory factor analysis to the model resulting from the application of EFA, the fit index revealed a poor fit ($\chi2 = 819.854$, $df = 87$, $\chi2 / df = 9.424$, $p < 0.001$, GFI = 0.868, CFI = 0.918, RMSEA = 0.101, PCLOSE = 0.000, MECVI = 1.070). Following, the modification index was analyzed and the trajectories between residues were added because they correlate, obtaining the model presented in Figure 1. The trajectories inserted between residues are theoretically justified by the similarity of the items. The structure of the model is the same as that obtained through EFA: 1-2-Years Financial Planning and Goals (FP), consisting of 6 items (FP1, FP2, FP3, FP4, FP5 and FP6), Long-Term Savings (LS), consisting of 6 items (LS1, LS2, LS3, LS4, LS5 and LS6) and Affinity for Numerical Calculation (ANC) consisting of 3 items (ANC1, ANC2 and ANC3). All standardized factor weights are found to be greater than 0.5 ($\lambda > 0.64$) and all individual reliability are above 0.25 ($R^2 > 0.41$). The fit indexes of the model in Figure 1 presented a good fit ($\chi2 = 234.832$, $df = 80$, $\chi2 / df = 2.935$, $p < 0.001$, GFI = 0.963, CFI = 0.983, RMSEA = 0.048, PCLOSE = 0.638, MECVI = 0.382). Additionally, the modified model presented a significantly higher quality of fit than the model initially applied to the sample ($\Delta\chi2 = 585.022 > \chi^2_{0.95,(7)} = 14.067$) as well as the considerably better MECVI value (0.382 < 1.070). The items that most contribute to the FP factor are item FP1 (I consider the steps I need to take to maintain my budget for the next 1-2 year) and FP4 (I decide beforehand how my money will be spent in the next 1-2 years). The items that most contribute to the LS factor are items LS4 (I make a financial planning for the future) and LS3 (I follow a careful financial budget) and the item that most contributes to the ANC factor is item ANC2 (I like working with the use of numbers).

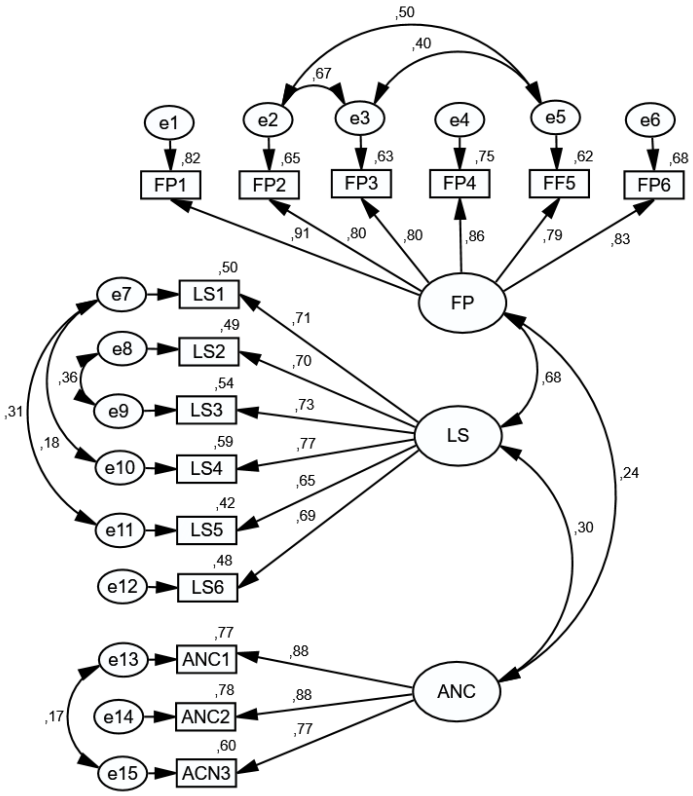

Figure no. 1 - Financial Literacy Perception Measurement Model
Source: self-content

In Factor 1 (1-2-Years Financial Planning and Goals), it is noticeable that there is a strong positive correlation (Pallant, 2013) between the residuals for items FP2 (I like to have a budget for the next 1-2 years) and FP3 (I like to check my budget to see how much money I have for 1-2 years) and FP2 and FP5 (I feel better having planned finances over the next 1-2 years). The correlation between items FP3 and FP5 is classified as moderate according to Cohen's criteria (Pallant, 2013). This is explained by the fact that the items represent the same intrinsic decision but are presented in different ways.

In Factor 2 (Long-term Savings) there is a moderate and positive correlation (Pallant, 2013) between the residuals of items LS1 (I regularly save money for the future) and LS5 (I save now to prepare for my old age) and a low positive correlation (Pallant, 2013) between the residuals of LS1 and LS4 (I make a financial planning for the future). This is explained by the fact that those who regularly save money for their future do financial planning and put aside (save) money to prepare for old age. Also, in this Factor 2, there is a moderate and positive correlation (Pallant, 2013) between the residuals of the LS2 (I am very careful with money) and LS3 (I follow a careful financial budget) items. It can be concluded that there is a correlation between being careful with money and following a careful financial budget.

Also in Factor 3 (I have affinity for numerical calculation), there is a low positive correlation (Pallant, 2013) between the residues of items ANC1 (It gives me satisfaction to solve everyday problems involving numbers) and ANC3 (I like to do calculations using numerical information). This is explained by the fact that the two items refer to the same object but are presented differently.

4.2.3 Reliability, Convergent Validity and Discriminant

Through the analysis of Table 5, it can be observed that the factors of the Financial Literacy Perception scale demonstrate Cronbach's alpha and composite reliability (CR) values higher than 0.85, and the Cronbach's alpha value of the entire scale (15 items) is 0.910, which indicates good reliability, so it can be assumed that the 15 used items consistently and reproducibly measure the factors of interest on the Financial Literacy Perception scale. The AVE values in the three scale factors demonstrate values greater than 0.5, which according to Hair et al. (2014), is a suitable convergent validity indicator.

Based on the AVE, MSV and ASV parameters presented in Table 5, it is found that in all factors, the value of the AVE parameter is higher than the value of the MSV parameter, and the value of the AVE parameter is also higher than the value of the ASV parameter, and the square root of the value of the AVE parameter (shown in bold in Table 5) is always higher than the inter-factor correlations. Thus, there is evidence of convergent and discriminant validity.

Table no. 5 – Reliability, Convergent Validity a Discriminant

						Correlations		
	Cronbach's Alpha	***CR***	***AVE***	***MSV***	***ASV***	**FP**	**LS**	**ANC**
FP	0.940	0.931	0.692	0.461	0.260	**0.832**		
LS	0.868	0.858	0.503	0.461	0.276	0.679***	**0.709**	
ANC	0.890	0.884	0.718	0.092	0.076	0.244***	0. 303***	**0.847**

*** *p < 0.001*

Source: self-content

It is noteworthy that the correlations between the various factors of the Financial Literacy Perception scale (Table 5) are statistically positive and significant (p <0.001), which justifies the existence of a second order hierarchical factor, called Financial Literacy Perception (FLP) whose model is presented in Figure 2. The highest correlation (0.679) occurs between the factors FP and LS, and according to Cohen's criteria, is classified as high magnitude (Pallant, 2013), which means that the higher the level of 1-2-years financial planning and goals accordance, the higher the levels associated with the perception of long-term savings.

Figure 2 presents a structural model for the perception of financial literacy whose fit quality values are considered to be good ($\chi2$ = 234.832, df = 80, $\chi2$ / df = 2.935, p <0.001, GFI = 0.963, CFI = 0.983, RMSEA = 0.048, PCLOSE = 0.638, MECVI = 0.382), being the same as those obtained in the first order model. The value of AVE for the financial literacy perception variable is 0.501, which is higher than 0.5, and according to Hair et al. (2014) is an appropriate convergent validity indicator. Perception of financial literacy is most strongly manifested in long-term savings (β = 0.92), followed by 1-2 years financial planning and goals (β = 0.74).

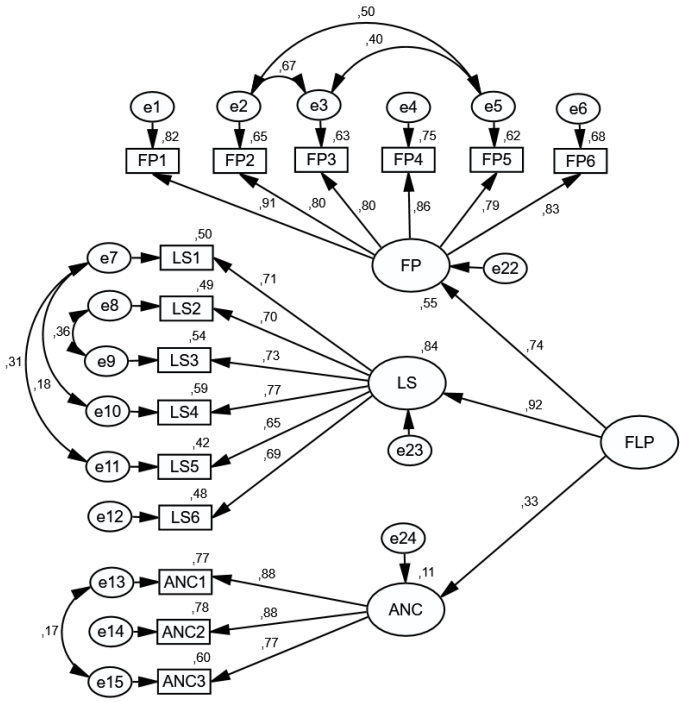

Figure no. 2 - Financial Literacy Perception Measurement Model
Source: self-content

4.2.4 Descriptive Analysis of Financial Literacy Perception Scale Factors

The variables representing the three factors and the Financial Literacy Perception scale were calculated using the scores obtained in the Factor Score Weights Matrix, and then the descriptive measures were presented in Table 6. It can be observed that the items with the highest average levels of correspondence are "I keep track of my money" (M = 4.16, SD = 0.78), "I make a financial planning for the future" (M = 3.99, SD = 0.89) and "I save my money for the future" (M = 3.94, SD = 0.93) and belong to the Long Term Savings factor. But in general, individuals perceive financial planning and goals at 1-2 years better (M = 3.62, SD = 0.83). To summarize, individuals perceive the existence of financial literacy, because the average level of concordance on the scale is 3.24 (SD = 0.56) on a 5-point scale.

Table no. 6 – Descriptive Statistics of Financial Literacy Perception Scale Factors

Items	*M*	*SD*
Factor 1: 1-2 years financial planning and goals	**3.62**	**0.83**
FP1- I consider the steps I need to take to maintain my budget for the next 1-2 years	3.48	0.96
FP2- I like to have a budget for the next 1-2 years and check to see if I'm fulfilling it	3.65	0.94

Items	*M*	*SD*
FP3- I like to consult my budget to check how much money I have for the next 1-2	3.68	0.94
FP4- I decide beforehand how my money will be spent in the next 1-2 years	3.39	0.99
FP5- I feel better having planned my finances over the next 1-2 years	3.76	0.93
FP6- I establish financial goals for the next 1-2 years	3.56	0.99
Fator 2: Long-term Savings	**3.41**	**0.60**
LS1- I regularly save money for the future	3.94	0.93
LS2- I am very cautious about the money	3.82	0.92
LS3- I follow a careful financial budget	3.66	0.98
LS4- I make a financial planning for the future	3.99	0.89
LS5- I save now to prepare myself for my old age.	3.59	1.09
LS6- I keep track of my money	4.16	0.78
Factor 3: Affinity for the Numerical Calculation	**3.49**	**0.81**
ANC1- It gives me satisfaction to solve daily problems involving numbers	3.76	0.98
ANC2- I like working with the use of numbers	3.82	1.03
ANC3- I like to do calculations using numeric information	3.82	0.98
Financial Literacy Perception Scale	**3.24**	**0.56**

Source: self-content

5. CONCLUSION

The purpose of this scientific study is to propose and to validate the financial literacy perception scale for the Portuguese population. The present study demonstrates the content validity of the financial literacy perception scale that was evaluated through the literature review and the theoretical validity of the same scale that was evaluated using the application of factorial validity, convergent validity and discriminant validity.

The used instrument was adequate to measure the perception of financial literacy of the Portuguese population, presenting a tri-factorial structure with adequate validity and reliability levels. The three obtained factors are 1-2 years financial planning and goals, long term savings and a affinity for numerical calculation.

In general, individuals perceive the existence of financial literacy and this manifests itself most strongly in long-term savings and 1-2-years financial planning and goals. This research may help academics, researchers and professionals to understand the perceptions of financial literacy of the Portuguese population better. It can also help financial education policymakers to retire their policies and create tools to improve the consumer's financial behaviour.

In a future study, it is intended to submit the scale to a second and independent validation sample, to compare the Portuguese population perception with the population of another country which characteristics are similar to Portugal. It is also intended to analyze if the levels of perception of financial literacy coincide with the level of knowledge of financial literacy, being the knowledge evaluated with answers to specific questions about the financial market.

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